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FEDERAL TRADE COMMISSION
OFFICE OF THE SECRETARY

OCA-T-700
Docket No. R97-1

DIRECT TESTIMONY

OF

SHERYDA C. COLLINS

ON BEHALF OF

THE OFFICE OF THE CONSUMER ADVOCATE

December 30, 1997

TABLE OF CONTENTS

STATEMENT OF QUALIFICATIONS.....	1
I. PURPOSE OF TESTIMONY.....	3
II. BACKGROUND--THE POSTAL SERVICE'S PROPOSAL	4
III. CLASSROOM PUBLICATIONS--A DEMONSTRATION OF IOCS SAMPLING PROBLEMS FOR SMALL SUBCLASSES.....	5
IV. THE ATTRIBUTABLE COSTS PER PIECE OF SPECIAL RATE ARE A REASONABLE PROXY FOR THE UNRELIABLE COSTS CALCULATED FOR LIBRARY RATE AND SHOULD BE USED BY THE COMMISSION FOR RATEMAKING PURPOSES.....	10
V. RECOMMENDATION	14
VI. CONCLUSION.....	15

1 DIRECT TESTIMONY

2 OF

3 SHERYDA C. COLLINS

4 STATEMENT OF QUALIFICATIONS

5
6 My name is Sheryda C. Collins. I have been employed by the Postal Rate

7 Commission since January 1972. I was first assigned to the Office of the Special

8 Assistant, and later to the Office of the Technical Staff, Officer of the Commission

9 (Litigation Staff), and the Office of Technical Analysis and Planning. As a Rate

10 Analyst and a Rate and Classification Analyst on the Commission's advisory staff, I

11 prepared technical analyses and designed rates and classifications. My work

12 product was incorporated within the Commission's Decisions in Docket Nos. R74-1,

13 R87-1, R90-1 and R94-1, and in numerous classification dockets.

14 As a Rate and Classification Analyst on the Litigation Staff, I assisted in

15 preparing testimony and exhibits on pricing and rate design in Docket Nos. R76-1

16 and R77-1. I performed technical analyses in connection with Docket Nos. MC76-5

17 and R78-1. I was a witness in Docket Nos. MC76-4 and MC79-2. In Docket No.

18 R80-1, as a major rate design witness, I proposed rates for First-Class Mail, Priority

19 Mail, Express Mail, fourth-class mail and special services. I also proposed a new

20 rate category for First-Class Mail. In Docket No. MC95-1, I testified about pricing

21 and relative cost coverage levels. In the Special Services Classification case,

1 Docket No. MC96-3, I testified about and made proposals regarding Certified Mail,
2 Return Receipts, Insured Mail and Express Mail Insurance, and Postal Cards.

3 I am a graduate of the University of Massachusetts and have taken credits
4 toward an MBA degree at George Washington University. I have taken courses in
5 economics, public utility regulation, statistics, accounting, data processing, and
6 programming.

1 I. PURPOSE OF TESTIMONY

2 The purpose of my testimony is to present an alternative to the Postal
3 Service's proposed rates for Standard B Library Rate mail. Because Library Rate is
4 a low volume subclass, the small number of IOCS tallies related to Library Rate and
5 from which the Library Rate costs are derived represents an extremely thin sample
6 and thus may not provide cost estimates which are truly representative of the
7 subclass. I propose, therefore, that the Commission use the costs of Standard B
8 Special Rate subclass as a proxy for the costs calculated for Library Rate.

1 II. BACKGROUND--THE POSTAL SERVICE'S PROPOSAL

2 Witness Adra, USPS-T-38, testifies about the rate proposals for Library Rate
3 and Special Rate mail. The rate structures of these two subclasses use the same
4 three tier elements. Using the latest Library Rate cost figures, he finds that the
5 current first pound rate of \$1.12 is not compensatory. Applying the appropriate
6 markup factor¹ (1.19537)² to the calculated new first pound cost (\$1.43) [Id.]
7 produces a first pound rate of \$1.71--a 53 percent increase. To mitigate the "rate
8 shock," he sets the first pound rate element at \$1.44, one cent over his calculated
9 first pound cost. He then distributes the resulting revenue loss to the two-to-seven
10 pound rate segment on a per pound basis. The rates he proposes represent an
11 increase over current rates of approximately 25 percent.

12 Witness Adra's proposal results in rates for Library Rate which are generally
13 higher than those proposed for Special Rate. Thus, he expects all Library Rate mail
14 that is eligible for Special Rate to migrate to that subclass. His financial calculations
15 reflect the assumption that 95 percent of Library Rate will migrate and pay the lower
16 Special Rate rates. Only those pieces that cannot qualify for the Special Rate will
17 be left to pay the higher Library Rate.

¹ The Revenue Foregone Reform Act of 1993 (RFRA) changed the manner in which rates for the preferred categories were to be set. Public Law 103-123, 107 Stat. 1267, 39 U.S.C. § 3626(a). RFRA specifies that after 1998 the percentage markup for a preferred rate subclass shall be one-half the markup proposed for the most closely corresponding regular-rate category. For the Standard B Library Rate subclass the corresponding regular-rate category is Standard B Special Rate.

² USPS-T-38, WP-Lib9, p. 2 (Adra).

1 III. CLASSROOM PUBLICATIONS--A DEMONSTRATION OF IOCS SAMPLING
2 PROBLEMS FOR SMALL SUBCLASSES

3 Guidance for solving the Library Rate problem (at least in the short term) may
4 be found in the history of various actions taken regarding another relatively small
5 subclass, Classroom. The Postal Service, the Commission and the participants
6 have been aware of problems surrounding the costs of Classroom publications for
7 many years.³ Many attempts have been made to address and compensate for the
8 instability of Classroom costs⁴ and it has been acknowledged that these costs are
9 too unreliable for ratemaking. The problem of wide fluctuations in reported
10 Classroom costs still has not been resolved. The low volume of Classroom mail
11 tends to produce a high coefficient of variation for Classroom costs. Consequently,
12 small variations in the number of Classroom pieces observed can be expected to
13 cause wide fluctuations in cost estimates. PRC Further Recommended Decision,
14 Docket No. MC96-2, at 16.

15 In Docket No. MC96-2, Mail Classification Reform II (Nonprofit Mail), Postal
16 Service witness Degen testified:

17 Volatility in the unit cost of Classroom mail can stem from volatility in
18 total Classroom attributable cost, total Classroom volume, or some
19 combination of the two. . . . The costs for Classroom are based on a very
20 small number of actual tallies. . . . The pattern of total costs tracks closely the
21 pattern of tallies. For a subclass as small as Classroom considerable
22 variation from year to year must be expected because the number of tallies is

³ See, for example, PRC Op., R84-1, paras. 5305-06, and PRC Op. R90-1, paras 5356-61.

⁴ PRC Op. R90-1, paras. 5356-61, PRC Op. R94-1, paras. 5212-16, and Docket No. MC96-2, USPS-CT-2.

1 very small. Consequently, variations in unit cost are an inherent problem for
2 Classroom.

3
4 The design of the IOCS does not generally allow increased sampling
5 of a particular subclass without increasing the overall sampling rate. In other
6 words, doubling the expected number of Classroom tallies would probably
7 require doubling the overall sampling rate. This would be very costly and
8 hard to justify for such a small category like Classroom. [USPS-CT-2 at 2
9 and 5.]

10
11 Witness Degen went on to say that Classroom is a very small volume
12 subclass with a very large coefficient of variance. At the 95 percent confidence level
13 there is a significant difference between the upper and lower bound cost estimates.
14 Variations in direct costs of this magnitude, he said, would cause problematic
15 variation in total unit cost estimates. He testified that, "The inevitable fluctuations
16 that will come in the Classroom cost estimates should support consideration of
17 alternative approaches." Id. at 6.

18 In this docket, Postal Service witness Degen has acknowledged that the
19 insufficiency of the IOCS sample in estimating cost is at least as severe for Library
20 Rate as it is for Classroom. In response to Presiding Officer's Information Request
21 No. 2 (POIR 2), he testifies:

22
23 We have looked at the tallies underlying Library rate. In 1995 there
24 are 152 tallies for Library rate. This may seem like a lot relative to other small
25 categories like Classroom, which had 31, however, tallies should occur in
26 proportion to volume and unit cost since tallies correspond to units in time
27 and higher cost categories embody more time per piece. If we look at tallies
28 per dollar of unit cost, Library has 80.4 and Classroom has 163.2. These
29 tallies per dollar of unit cost are proportional to the relative volumes in these
30 two classes. **Our conclusion is that Library rate costs, like Classroom,**
31 **suffer from some instability due to the small volume and the nature of**
32 **the IOCS sampling procedure.** [Emphasis added.]
33

1 In Docket No. MC96-2, the Postal Service proposed that the Classroom cost
2 problem be solved by “a phased combining of Classroom Mail rates and costs with
3 that of Nonprofit Mail.” USPS-CT-3 at 2. The Commission recommendation was to
4 apply existing Nonprofit Periodicals subclass rates to Classroom mail as an interim
5 measure, deferring a decision on a permanent merger to the next rate case. The
6 decision to merge Classroom and Nonprofit rates was based on the Postal Service’s
7 finding of commonalties between the two subclasses. These include the same
8 operational network, the same rate structure, the same RFRA⁵-specified cost
9 coverage, and the same advertising pound rates (also specified by RFRA). *Id.* at
10 (B) (4). This merger provided rate stability for Classroom mail and a cost coverage
11 consistent with RFRA. PRC Further Recommended Decision in Docket No. MC96-2
12 at 17 and 19. The Governors agreed that the full rates for Classroom mail should
13 be set using the full rates previously established for Nonprofit Periodicals. The
14 Governor’s Decision specifically noted that under the terms of RFRA, Classroom
15 and Nonprofit Periodicals are intended to have the same target cost coverage.

16 In this docket, the Postal Service proposes a *de facto* merger of two
17 subclasses, Library and Special Rate. Witness Adra proposes Library Rate rates
18 based on costs which share similar defects to those identified (and addressed) for
19 Classroom mail. The result is rates that are so high that he predicts 95 percent of
20 the present volume of the Library Rate subclass will migrate to Special Rate. I
21 suspect that witness Adra’s prediction would have been a 100 percent migration if

⁵ See fn. 1.

1 not for the fact that a small portion of Library Rate pieces is not eligible to be mailed
2 Special Rate.⁶

3 However, the circumstances surrounding these two subclasses and their
4 relationship to each other are somewhat different than those of Classroom and
5 Nonprofit subclasses. Classroom and Nonprofit are both preferred subclasses and
6 under RFRA are to have the same cost coverage, which is set in relation to the cost
7 coverage of the non-preferred subclass, Regular Periodicals. In contrast, Library
8 Rate's cost coverage under RFRA is to be set at one-half of the cost coverage of
9 Special Rate, the appropriate non-preferred subclass. Witness Adra explains that
10 this is exactly what he has done. However, applying one-half of the Special Rate
11 markup to the flawed costs of Library Rate results in rates that are so high that
12 virtually all of "preferred rate" Library Rate subclass will migrate to the "non-preferred
13 (but lower) rates" of the Special Rate subclass. There, those pieces will pay the
14 Special Rate cost coverage, which is twice the level specified by RFRA for Library
15 Rate mail.

16 When asked to explain any efforts made to improve the accuracy of the
17 attributable cost data for Library Rate mail, the Postal Service responded that
18 although many improvements had been made in postal cost allocation, "there were
19 . . . no efforts directed specifically to measurement of the costs of Library Rate."
20 Interrogatory ALA/USPS-3(c). Also, in response to POIR No. 2, witness Degen

⁶ In answer to an interrogatory, witness Adra stated that mathematical kits are examples of items which would be eligible to be mailed Library Rate but not Special Rate. Tr. 8/4276.

1 stated that, "the Postal Service has not conducted any analysis of the increase in
2 Library rate costs in preparation for R97-1."

3 A serious question comes to mind. If the attributable costs for Library Rate
4 are truly reasonable and accurate enough to be used for ratemaking, as witnesses
5 Adra and Degen have testified,⁷ why is the Postal Service so complacent about the
6 migration of Library Rate pieces to the Special Rate subclass when each migrating
7 piece will cost at least 19 cents more than the revenue brought in? (\$1.43 cost per
8 piece Library Rate minus \$1.24 rate per piece Special Rate = \$0.19.)

⁷ See, for example, Degen response to POIR No. 2, question 2 and Adra at Tr. 8/4308.

1 IV. THE ATTRIBUTABLE COSTS PER PIECE OF SPECIAL RATE ARE A
2 REASONABLE PROXY FOR THE UNRELIABLE COSTS CALCULATED
3 FOR LIBRARY RATE AND SHOULD BE USED BY THE COMMISSION FOR
4 RATEMAKING PURPOSES

5
6 Special Rate costs should be used as a proxy for Library Rate costs.

7 Although, as shown above, the relationship between these two subclasses is
8 somewhat different than that at issue in Docket No. MC96-2, many of the reasons
9 cited by the Commission and the Governors for recommending the union of
10 Classroom and Nonprofit Periodicals rates apply here. The reasons in support of
11 this conclusion include:

- 12 • "The rate structure for Library and Special Standard mail is identical." Tr.
13 8/4274.
- 14 • The composition of both subclasses is very similar. See DMM 52, E620.5.2, 5.4.
15 Witness Adra states that the predominant items mailed in both subclasses are
16 books, sound and video recordings. Tr. 8/4293-96.
- 17 • The processing of Library Rate and Special Rate is similar. The normal practice
18 is to process them in the same operations as a single mail stream. This is
19 significant because witness Degen, when asked about differences in the
20 processing of the two types of mail, testified that if the two subclasses were
21 segregated [i.e., in two separate mailstreams], he would have had more concern
22 that there actually were differences in mail processing. Tr. 12/6336-37.

- 1 • The largest component of cost for Library Rate, mail processing, is “volatile” and
2 unstable due to small volumes and the nature of the IOCS sampling procedure.
3 POIR No. 2, question 1, and Tr. 8/4305.
- 4 • The second largest component of cost for Library Rate, transportation, uses the
5 Transportation Cost System (TRACS) to develop distribution keys, which are
6 then used to estimate various purchased transportation costs. The coefficients
7 of variance for the estimates of this small subclass are high compared to the
8 Special Rate subclass. Witness Nieto testified that, “Low volume in a particular
9 subclass would result in increased variance in the distribution keys since it is
10 likely that fewer movements and fewer containers sampled would contain Library
11 Rate mail.” Tr. 7/3359. Special Rate has coefficients of variance that are better
12 on the whole than for Library Rate. Tr. 7/3523-29 and Tr. 8/4307.
- 13 • Variations in direct costs, because of high coefficients of variance, cause
14 problematic variation in total unit cost estimates. This problem has been
15 recognized and ameliorated by both the Commission and the Postal Service in
16 regard to Classroom mail. Similar corrective action should be taken for Library
17 Rate mail.
- 18 • Use of Special Rate costs as a proxy for Library Rate allows for the cost
19 coverage provisions of RFRA to be met with reasonable rate results.
- 20 • **Not** substituting Special Rate costs for Library Rate costs creates a *de facto*
21 merger of the two subclasses. This would be improper because Library Rate, a
22 preferred rate category established by an Act of Congress, essentially would be
23 eliminated by administrative fiat. The few unlucky Library Rate mailers who

1 cannot qualify for the lower Special Rate rates certainly will not receive the
2 benefits of a preferred rate category as Congress intended—and, to a lesser
3 extent, neither will those Library Rate pieces that migrate.

4 • When Witness Adra was asked whether he was concerned about witness
5 Degen's answers to POIR No. 2 regarding instability in Library Rate costs, he
6 responded that "timing is important and relevant . . . Witness Degen did this
7 analysis in the discovery period, not during when we were working with rates and
8 designing the rates." Tr. 8/4309. The implication seems to be that due to the
9 press of time in preparing the original filing, the Library Rate cost problem was
10 not addressed. Not until the discovery period, with questions pending, was there
11 time for witness Degen, or others, to focus on this issue.

12 • Testimony of the Postal Service affirms that a cost proxy for the Library Rate
13 subclass may be considered. At Tr. 8/4310, the following colloquy occurred with
14 witness Adra:

15 Q. If you could turn back the clock and take into account your awareness
16 now that there is variance in the Segment 3 costs which underlies the library
17 rate and there appears at least to be higher variance in Segment 14, highway
18 transportation, higher for library rate than special rate, do you think you might
19 consider using a cost proxy instead of the reported cost for library rate?
20

21 A. If I can turn back the clock and if I have also more time, I would
22 definitely look into it. Now what would I do? It's hard for me today to answer
23 conclusively.
24
25
26

27 And at Tr. 8/4311:

28
29 Q. Since special rate is the commercial counterpart for library rate, do you
30 think that that might be one of the cost proxies you would look at? If you

1 were to think that it might be worthwhile to explore cost proxies, would you
2 look at special rate?

3

4 A. If I deemed it appropriate to look for a proxy, it's a possibility.

5

6

7 • The Presiding Officer asked witness Adra, in regard to the classroom

8 reclassification decision, "Are you aware that in that case a proxy was used for

9 classroom costs?" The witness answered "Yes, I am." Tr. 8/4319.

1 V. RECOMMENDATION

2 The rates I propose as an alternative are shown below, compared to those
3 proposed by the Postal Service.

4		<u>OCA</u>	<u>PS</u>
5	First Pound	\$1.13	\$1.44
6	Two through Eight Pounds	\$0.40	\$0.52
7	All Pounds Over Eight	\$0.19	\$0.25

8 These rates will yield revenues which are approximately \$9 million less than the
9 Postal Service proposal. My exhibits show the derivation of these rates. I have
10 used the same methodology as witness Adra, only substituting Special Rate costs
11 for his calculated Library Rate costs, and have made a small adjustment to the
12 volume estimate to compensate for these lower alternative rates.

1 VI. CONCLUSION

2 Use of the reported attributable costs of Library Rate mail produces rates that
3 are unacceptably high and which do not have a reasonable relationship with other
4 rates, i.e., the subclass with a presumptive rate preference ends up with rates higher
5 than the regular subclass. Use of Special Rate unit costs as a proxy produces rates
6 which preserve historical rate relationships and are reasonable. They also are
7 responsive to the requirements of RFRA and should be recommended by the
8 Commission.

9

Proposed Rate for First Pound

	[2]	Markup [3]	Proposed	ROUNDED
\$Transportation per lb	\$0.14	119.537%	\$0.1674	\$0.17
\$ non-transp per lb [1]	\$0.02	119.537%	\$0.0239	<u>\$0.02</u>
Subtotal - \$ per lb	\$0.16	119.537%	\$0.1913	\$0.19
Per piece	\$0.96	119.537%	\$1.1476	\$1.15
Total for First Pound	\$1.12	119.537%	\$1.3388	\$1.34

Rate Comparison	R94	Proposed	Percent Change
First Pound - Single Piece	\$1.12	\$1.34	20%
Second through Seventh Pounds	\$0.41	\$0.19	-54%
Eighth Pound and over	\$0.22	\$0.19	-14%

Notes:

[1] Based on 2 cents per lb to reflect weight-related non-transportation costs;

[2] USPS-T-38, WP-SR4, p.1.

[3] USPS-T-38, WP-Lib9, p.2.

**Standard (B) Library Rate
Adjusting Proposed Rates - Full rates
TYAR Revenue Estimates**

Calculation of Postage Pounds		
USPS Volume (pieces)	Weight Per Piece (pounds)	Postage Pounds (pounds)
[1]	[2]	[3]
28,759,700	2.254645404	64,842,925

Calculation of Revenues with raw proposed rates

Rate Unit	Postage Pounds		Proposed Rates [6]	Unadjusted Revenues [7]	Adjusted Factor [8]	Adjusted Revenues [9]	Barcode Leakage [10]	Net Revenue [11]
	FY 1996 % [4]	TYBR Distribution [5]						
First Pound - Single Piece	44.35%	28,759,701	\$1.34	\$38,537,999	1.003520899	\$38,673,687	--	
Second through Seventh Pounds	44.89%	29,110,976	\$0.19	\$5,531,086	1.003520899	\$5,550,560	--	
Eighth Pound and over	10.75%	6,972,249	\$0.19	\$1,324,727	1.003520899	\$1,329,392	--	
Total	100.00%	64,842,926	--	\$45,393,812		\$45,553,639	\$10,036	\$45,543,603

Calculation of Revenues with adjusted rates - Set first pound to \$1.13 [12]

Rate Unit	Postage Pounds		Proposed Rates	Unadjusted Revenues	Adjusted Factor	Adjusted Revenues	Barcode Leakage	Net Revenue
	FY 1996 %	TYBR Distribution						
First Pound - Single Piece	44.35%	28,759,701	\$1.13	\$32,498,462	1.003520899	\$32,612,885	--	
Second through Seventh Pounds	44.89%	29,110,976	\$0.19	\$5,531,086	1.003520899	\$5,550,560	--	
Eighth Pound and over	10.75%	6,972,249	\$0.19	\$1,324,727	1.003520899	\$1,329,392	--	
Total	100.00%	64,842,926	--	\$39,354,275		\$39,492,837	\$10,036	\$39,482,801

Leakage	\$6,060,802	[13]
Second through Seventh	29,110,976	
Add-on per pound	\$0.21	

Calculation of revenues with adjusted rates [14]

Rate Unit	Postage Pounds		Adjusted Proposed Rates	Unadjusted Revenues	Adjusted Factor	Adjusted Revenues	Barcode Leakage	Net Revenue
	FY 1996 %	TYBR Distribution						
First Pound - Single Piece	44.35%	28,759,701	\$1.13	\$32,498,462	1.003520899	\$32,612,885	--	
Second through Seventh Pounds	44.89%	29,110,976	\$0.40	\$11,644,391	1.003520899	\$11,685,389	--	
Eighth Pound and over	10.75%	6,972,249	\$0.19	\$1,324,727	1.003520899	\$1,329,392	--	
Total	100.00%	64,842,926	--	\$45,467,580		\$45,627,666	\$10,036	\$45,617,630

Adjusted Proposed Rate Elements		
Rate Element	Adjusted Rounded Rates	Percent Increase (Decrease)
First Pound - Single Piece	\$1.13	1%
Second through Seventh Pounds	\$0.40	-2%
Eighth Pound and over	\$0.19	-14%

Notes:

- [1] USPS-T-38, WP-Lib10 (Adra)
- [2] USPS-T-38, WP-Lib2 (Adra)
- [3] [1]*[2]
- [4] USPS WP-Lib2 (Adra)
- [5] [3] * percentage in[4]
- [6] Proposed rates from p. 1.
- [7] [5]*[6]
- [8] Billing Determinants 1996
- [9] [7]*[8]
- [10] USPS-T-38, WP=Lib10. Volume of currently barcoded * proposed discount of 4 cents
- [11] [9] - [10]
- [12] Set the first pound rate element to \$1.13 and recalculate revenues in the same way as done in steps [4] to [11]
- [13] Distributes the revenues loss caused from adjusting the first pound rate element over the Second through Seventh Pounds.
- [14] Adjust the Second to Seventh Pound rate element by the add-on calculated in [13]; Recalculate revenues.

**SUMMARY TABLE OF AFTER-RATES FIXED WEIGHT INDICES
FOR STANDARD B SPECIAL RATE AND LIBRARY RATE
USING 1996 BILLING DETERMINANTS**

QUARTER	STANDARD B		LIBRARY RATE - S
	SPECIAL RATE (PX29)	LIBRARY RATE - L (PX30)	
1966.1	0.159803	0.052731	0.052731
1966.2	0.159803	0.052731	0.052731
1966.3	0.159803	0.052731	0.052731
1966.4	0.159803	0.052731	0.052731
1967.1	0.159803	0.052731	0.052731
1967.2	0.159803	0.052731	0.052731
1967.3	0.159803	0.052731	0.052731
1967.4	0.159803	0.052731	0.052731
1968.1	0.162225	0.054446	0.054446
1968.2	0.191764	0.075357	0.075357
1968.3	0.191764	0.075357	0.075357
1968.4	0.191764	0.075357	0.075357
1969.1	0.191764	0.075357	0.075357
1969.2	0.191764	0.075357	0.075357
1969.3	0.191764	0.075357	0.075357
1969.4	0.191764	0.075357	0.075357
1970.1	0.191764	0.075357	0.075357
1970.2	0.191764	0.075357	0.075357
1970.3	0.191764	0.075357	0.075357
1970.4	0.191764	0.075357	0.075357
1971.1	0.191764	0.075357	0.075357
1971.2	0.191764	0.075357	0.075357
1971.3	0.207502	0.080299	0.080299
1971.4	0.223725	0.085393	0.085393
1972.1	0.223725	0.085393	0.085393
1972.2	0.223725	0.085393	0.085393
1972.3	0.223725	0.085393	0.085393
1972.4	0.223725	0.085393	0.085393
1973.1	0.223725	0.085393	0.085393
1973.2	0.223725	0.085393	0.085393
1973.3	0.223725	0.085393	0.085393
1973.4	0.233531	0.089256	0.089256

1974.1	0.255685	0.097983	0.097983
1974.2	0.262352	0.097983	0.097983
1974.3	0.275686	0.097983	0.097983
1974.4	0.275686	0.097983	0.097983
1975.1	0.275686	0.097983	0.097983
1975.2	0.275686	0.097983	0.097983
1975.3	0.275686	0.097983	0.097983
1975.4	0.297220	0.106707	0.106707
1976.1	0.308008	0.109047	0.109047
1976.2	0.315599	0.130644	0.130644
1976.3	0.315599	0.130644	0.130644
1976.4	0.357222	0.139254	0.139254
1977.1	0.364114	0.140679	0.140679
1977.2	0.364114	0.140679	0.140679
1977.3	0.364114	0.140679	0.140679
1977.4	0.413655	0.157671	0.157671
1978.1	0.422632	0.160750	0.16075
1978.2	0.422632	0.160750	0.16075
1978.3	0.445376	0.163212	0.163212
1978.4	0.649015	0.196053	0.196053
1979.1	0.675168	0.201013	0.201013
1979.2	0.675168	0.201013	0.201013
1979.3	0.675168	0.201013	0.201013
1979.4	0.800812	0.236189	0.236189
1980.1	0.827674	0.243709	0.243709
1980.2	0.827674	0.243709	0.243709
1980.3	0.827674	0.243709	0.243709
1980.4	0.827674	0.268098	0.268098
1981.1	0.827674	0.273938	0.273938
1981.2	0.827674	0.273938	0.273938
1981.3	0.877279	0.303937	0.303937
1981.4	0.877658	0.346711	0.346711
1982.1	0.877658	0.350283	0.350283
1982.2	0.877658	0.431940	0.43194
1982.3	0.877658	0.449892	0.449892
1982.4	0.877658	0.458357	0.458357
1983.1	0.877658	0.449892	0.449892
1983.2	0.877658	0.483140	0.48314
1983.3	0.877658	0.490156	0.490156
1983.4	0.877658	0.490156	0.490156
1984.1	0.877658	0.490156	0.490156
1984.2	0.877658	0.490156	0.490156
1984.3	0.877658	0.490156	0.490156
1984.4	0.877658	0.490156	0.490156
1985.1	0.877658	0.490156	0.490156
1985.2	0.902057	0.513911	0.513911

1985.3	0.952557	0.563080	0.56308
1985.4	0.952557	0.563080	0.56308
1986.1	0.952557	0.563080	0.56308
1986.2	0.952557	0.696085	0.696085
1986.3	0.952557	0.763485	0.763485
1986.4	0.952557	0.759228	0.759228
1987.1	0.952557	0.759228	0.759228
1987.2	0.952557	0.759228	0.759228
1987.3	0.952557	0.759228	0.759228
1987.4	0.952557	0.759228	0.759228
1988.1	0.952557	0.759228	0.759228
1988.2	0.952557	0.759228	0.759228
1988.3	1.192139	0.867509	0.867509
1988.4	1.275260	0.905077	0.905077
1989.1	1.275260	0.905077	0.905077
1989.2	1.275260	0.905077	0.905077
1989.3	1.275260	0.905077	0.905077
1989.4	1.275260	0.905077	0.905077
1990.1	1.275260	0.905077	0.905077
1990.2	1.275260	0.905077	0.905077
1990.3	1.275260	0.905077	0.905077
1990.4	1.275260	0.905077	0.905077
1991.1	1.275260	0.905077	0.905077
1991.2	1.366027	0.913337	0.913337
1991.3	1.497134	0.925269	0.925269
1991.4	1.497134	0.925269	0.925269
1992.1	1.497134	0.925269	0.925269
1992.2	1.497134	0.925269	0.925269
1992.3	1.497134	0.925269	0.925269
1992.4	1.497134	0.925269	0.925269
1993.1	1.497134	0.925269	0.925269
1993.2	1.497134	0.925269	0.925269
1993.3	1.497134	0.925269	0.925269
1993.4	1.497134	0.925269	0.925269
1994.1	1.497134	0.927702	0.927702
1994.2	1.497134	0.935305	0.935305
1994.3	1.497134	0.935305	0.935305
1994.4	1.497134	0.935305	0.935305
1995.1	1.497134	0.935305	0.935305
1995.2	1.694867	1.420675	1.420675
1995.3	1.763468	1.589069	1.589069
1995.4	1.763468	1.589069	1.589069
1996.1	1.763468	1.591078	1.591078
1996.2	1.763468	1.591502	1.591502
1996.3	1.763468	1.591502	1.591502
1996.4	1.763468	1.591502	1.591502

1997.1	1.763468	1.593474	1.593474
1997.2	1.763468	1.593935	1.593935
1997.3	1.763468	1.593935	1.593935
1997.4	1.763468	1.593935	1.593935
1998.1	1.764639	1.901728	1.768591
1998.2	1.764940	1.980874	1.813503
1998.3	1.764940	1.980874	1.813503
1998.4	1.764940	1.980874	1.813503
1999.1	1.764940	1.980874	1.813503
1999.2	1.764940	1.980874	1.813503
1999.3	1.764940	1.980874	1.813503
1999.4	1.764940	1.980874	1.813503
2000.1	1.764940	1.980874	1.813503
2000.2	1.764940	1.980874	1.813503
2000.3	1.764940	1.980874	1.813503
2000.4	1.764940	1.980874	1.813503

OCA ADJUSTMENT TO USPS LIBRARY RATE VOLUME ESTIMATE

[1]	1.813503	
[2]	1.908740	
[3] & [4]	1.81826485	1.586514
[5]	0.872542853	
[6] & [7]	-0.127457147	0.080807831
[8] & [9]	28,727,574	31,048,987

- [1] Postal quarter 2000.4 (Library Rate at the rates for Special Rate)
USPS-LR-H-172
- [2] Postal quarter 2000.4 (Library Rate at the USPS proposed rates
for Library Rate) USPS-LR-H-172
- [3] $[2] * (0.05) + [1] * (0.95)$
- [4] See OCA Exh. 704. Postal quarter 2000.4
USPS-LR-H-172 with proposed OCA rates instead of USPS
- [5] $[4] / [3]$
- [6] $-1 + [5]$
- [7] $[6] * \text{elasticity } (-0.634)$. USPS-T-6 at 168
- [8] UPSP-T-38, WP-Lib8 (Adra)
- [9] $(1 + [7]) * [8] = \text{OCA volume}$

OCA

**SUMMARY TABLE OF AFTER-RATES FIXED WEIGHT INDICES
FOR STANDARD B SPECIAL RATE AND LIBRARY RATE
USING 1996 BILLING DETERMINANTS**

QUARTER	STANDARD B	
	SPECIAL RATE (PX29)	LIBRARY RATE - L (PX30)
1966.1	0.159803	0.052731
1966.2	0.159803	0.052731
1966.3	0.159803	0.052731
1966.4	0.159803	0.052731
1967.1	0.159803	0.052731
1967.2	0.159803	0.052731
1967.3	0.159803	0.052731
1967.4	0.159803	0.052731
1968.1	0.162225	0.054446
1968.2	0.191764	0.075357
1968.3	0.191764	0.075357
1968.4	0.191764	0.075357
1969.1	0.191764	0.075357
1969.2	0.191764	0.075357
1969.3	0.191764	0.075357
1969.4	0.191764	0.075357
1970.1	0.191764	0.075357
1970.2	0.191764	0.075357
1970.3	0.191764	0.075357
1970.4	0.191764	0.075357
1971.1	0.191764	0.075357
1971.2	0.191764	0.075357
1971.3	0.207502	0.080299
1971.4	0.223725	0.085393
1972.1	0.223725	0.085393
1972.2	0.223725	0.085393
1972.3	0.223725	0.085393
1972.4	0.223725	0.085393
1973.1	0.223725	0.085393
1973.2	0.223725	0.085393
1973.3	0.223725	0.085393

1973.4	0.233531	0.089256
1974.1	0.255685	0.097983
1974.2	0.262352	0.097983
1974.3	0.275686	0.097983
1974.4	0.275686	0.097983
1975.1	0.275686	0.097983
1975.2	0.275686	0.097983
1975.3	0.275686	0.097983
1975.4	0.297220	0.106707
1976.1	0.308008	0.109047
1976.2	0.315599	0.130644
1976.3	0.315599	0.130644
1976.4	0.357222	0.139254
1977.1	0.364114	0.140679
1977.2	0.364114	0.140679
1977.3	0.364114	0.140679
1977.4	0.413655	0.157671
1978.1	0.422632	0.160750
1978.2	0.422632	0.160750
1978.3	0.445376	0.163212
1978.4	0.649015	0.196053
1979.1	0.675168	0.201013
1979.2	0.675168	0.201013
1979.3	0.675168	0.201013
1979.4	0.800812	0.236189
1980.1	0.827674	0.243709
1980.2	0.827674	0.243709
1980.3	0.827674	0.243709
1980.4	0.827674	0.268098
1981.1	0.827674	0.273938
1981.2	0.827674	0.273938
1981.3	0.877279	0.303937
1981.4	0.877658	0.346711
1982.1	0.877658	0.350283
1982.2	0.877658	0.431940
1982.3	0.877658	0.449892
1982.4	0.877658	0.458357
1983.1	0.877658	0.449892
1983.2	0.877658	0.483140
1983.3	0.877658	0.490156
1983.4	0.877658	0.490156
1984.1	0.877658	0.490156
1984.2	0.877658	0.490156
1984.3	0.877658	0.490156
1984.4	0.877658	0.490156
1985.1	0.877658	0.490156

1985.2	0.902057	0.513911
1985.3	0.952557	0.563080
1985.4	0.952557	0.563080
1986.1	0.952557	0.563080
1986.2	0.952557	0.696085
1986.3	0.952557	0.763485
1986.4	0.952557	0.759228
1987.1	0.952557	0.759228
1987.2	0.952557	0.759228
1987.3	0.952557	0.759228
1987.4	0.952557	0.759228
1988.1	0.952557	0.759228
1988.2	0.952557	0.759228
1988.3	1.192139	0.867509
1988.4	1.275260	0.905077
1989.1	1.275260	0.905077
1989.2	1.275260	0.905077
1989.3	1.275260	0.905077
1989.4	1.275260	0.905077
1990.1	1.275260	0.905077
1990.2	1.275260	0.905077
1990.3	1.275260	0.905077
1990.4	1.275260	0.905077
1991.1	1.275260	0.905077
1991.2	1.366027	0.913337
1991.3	1.497134	0.925269
1991.4	1.497134	0.925269
1992.1	1.497134	0.925269
1992.2	1.497134	0.925269
1992.3	1.497134	0.925269
1992.4	1.497134	0.925269
1993.1	1.497134	0.925269
1993.2	1.497134	0.925269
1993.3	1.497134	0.925269
1993.4	1.497134	0.925269
1994.1	1.497134	0.927702
1994.2	1.497134	0.935305
1994.3	1.497134	0.935305
1994.4	1.497134	0.935305
1995.1	1.497134	0.935305
1995.2	1.694867	1.420675
1995.3	1.763468	1.589069
1995.4	1.763468	1.589069
1996.1	1.763468	1.591078
1996.2	1.763468	1.591502
1996.3	1.763468	1.591502

1996.4	1.763468	1.591502
1997.1	1.763468	1.593474
1997.2	1.763468	1.593935
1997.3	1.763468	1.593935
1997.4	1.763468	1.593935
1998.1	1.764639	1.588032
1998.2	1.764940	1.586514
1998.3	1.764940	1.586514
1998.4	1.764940	1.586514
1999.1	1.764940	1.586514
1999.2	1.764940	1.586514
1999.3	1.764940	1.586514
1999.4	1.764940	1.586514
2000.1	1.764940	1.586514
2000.2	1.764940	1.586514
2000.3	1.764940	1.586514
2000.4	1.764940	1.586514

**Standard (B) Library Rate
Adjusting Proposed Rates - Full rates
TYAR Revenue Estimates**

Calculation of Postage Pounds		
OCA Volume (pieces)	Weight Per Piece (pounds)	Postage Pounds (pounds)
[1]	[2]	[3]
31,048,987	2.2546454	70,004,456

Calculation of Revenues with raw proposed rates

Rate Unit	Postage Pounds		Proposed Rates [6]	Unadjusted Revenues [7]	Adjusted Factor [8]	Adjusted Revenues [9]	Barcode Leakage [10]	Net Revenue [11]
	FY 1996 % [4]	TYBR Distribution [5]						
First Pound - Single Piece	44.35%	31,048,988	\$1.34	\$41,605,643	1.003520899	\$41,752,133	--	
Second through Seventh Poun	44.89%	31,428,225	\$0.19	\$5,971,363	1.003520899	\$5,992,387	--	
Eighth Pound and over	10.75%	7,527,244	\$0.19	\$1,430,176	1.003520899	\$1,435,212	--	
Total	100.00%	70,004,457	--	\$49,007,183		\$49,179,732	\$10,036	\$49,169,696

Calcualtion of Revenues with adjusted rates - Set first pound to \$1.13 [12]

Rate Unit	Postage Pounds		Proposed Rates	Unadjusted Revenues	Adjusted Factor	Adjusted Revenues	Barcode Leakage	Net Revenue
	FY 1996 %	TYBR Distribution						
First Pound - Single Piece	44.35%	31,048,988	\$1.13	\$35,085,356	1.003520899	\$35,208,888	--	
Second through Seventh Poun	44.89%	31,428,225	\$0.19	\$5,971,363	1.003520899	\$5,992,387	--	
Eighth Pound and over	10.75%	7,527,244	\$0.19	\$1,430,176	1.003520899	\$1,435,212	--	
Total	100.00%	70,004,457	--	\$42,486,895		\$42,636,487	\$10,036	\$42,626,451

Leakage	\$6,543,245	[13]
Second through Seventh	31,428,225	
Add-on per pound	\$0.21	

Calculation of revenues with adjusted rates [14]

Rate Unit	Postage Pounds		Adjusted Proposed Rates	Unadjusted Revenues	Adjusted Factor	Adjusted Revenues	Barcode Leakage	Net Revenue
	FY 1996 %	TYBR Distribution						
First Pound - Single Piece	44.35%	31,048,988	\$1.13	\$35,085,356	1.003520899	\$35,208,888	--	
Second through Seventh Poun	44.89%	31,428,225	\$0.40	\$12,571,290	1.003520899	\$12,615,552	--	
Eighth Pound and over	10.75%	7,527,244	\$0.19	\$1,430,176	1.003520899	\$1,435,212	--	
Total	100.00%	70,004,457	--	\$49,086,822		\$49,259,652	\$10,036	\$49,249,616

Adjusted Proposed Rate Elements

Rate Element	Adjusted Rounded Rates	Percent Increase (Decrease)
First Pound - Single Piece	\$1.13	1%
Second through Seventh Poun	\$0.40	-2%
Eighth Pound and over	\$0.19	-14%

Notes:

- [1] OCA Exh. 704, p. 4
- [2] USPS WP-Lib2 (Adra)
- [3] [1]*[2]
- [4] USPS WP-Lib2 (Adra)
- [5] [3] * percentage in[4]
- [6] Proposed rates from p. 1.
- [7] [5]*[6]
- [8] Billing Determinants 1996
- [9] [7]*[8]
- [10] USPS-T-38, WP=Lib10. Volume of currently barcoded * proposed discount of 4 cents
- [11] [9] - [10]
- [12] Set the first pound rate element to \$1.13 and recalculate revenues in the same way as done in steps [4] to [11]
- [13] Distributes the revenues loss caused from adjusting the first pound rate element over the Second through Seventh Pounds.
- [14] Adjust the Second to Seventh Pound rate element by the add-on calculated in [13]; Recalculate revenues.

Library Rate : Proposed Rate Comparison

Weight (lbs)	R94 Rates	Proposed Rates	Percent Change
1	\$1.12	\$1.13	0.89%
2	\$1.53	\$1.53	0.00%
3	\$1.94	\$1.93	-0.52%
4	\$2.35	\$2.33	-0.85%
5	\$2.76	\$2.73	-1.09%
6	\$3.17	\$3.13	-1.26%
7	\$3.58	\$3.53	-1.40%
8	\$3.80	\$3.72	-2.11%
9	\$4.02	\$3.91	-2.74%
10	\$4.24	\$4.10	-3.30%
11	\$4.46	\$4.29	-3.81%
12	\$4.68	\$4.48	-4.27%
13	\$4.90	\$4.67	-4.69%
14	\$5.12	\$4.86	-5.08%
15	\$5.34	\$5.05	-5.43%
16	\$5.56	\$5.24	-5.76%
17	\$5.78	\$5.43	-6.06%
18	\$6.00	\$5.62	-6.33%
19	\$6.22	\$5.81	-6.59%
20	\$6.44	\$6.00	-6.83%
21	\$6.66	\$6.19	-7.06%
22	\$6.88	\$6.38	-7.27%
23	\$7.10	\$6.57	-7.46%
24	\$7.32	\$6.76	-7.65%
25	\$7.54	\$6.95	-7.82%
26	\$7.76	\$7.14	-7.99%
27	\$7.98	\$7.33	-8.15%
28	\$8.20	\$7.52	-8.29%
29	\$8.42	\$7.71	-8.43%
30	\$8.64	\$7.90	-8.56%
31	\$8.86	\$8.09	-8.69%
32	\$9.08	\$8.28	-8.81%
33	\$9.30	\$8.47	-8.92%
34	\$9.52	\$8.66	-9.03%
35	\$9.74	\$8.85	-9.14%
36	\$9.96	\$9.04	-9.24%
37	\$10.18	\$9.23	-9.33%
38	\$10.40	\$9.42	-9.42%
39	\$10.62	\$9.61	-9.51%
40	\$10.84	\$9.80	-9.59%

41	\$11.06	\$9.99	-9.67%
42	\$11.28	\$10.18	-9.75%
43	\$11.50	\$10.37	-9.83%
44	\$11.72	\$10.56	-9.90%
45	\$11.94	\$10.75	-9.97%
46	\$12.16	\$10.94	-10.03%
47	\$12.38	\$11.13	-10.10%
48	\$12.60	\$11.32	-10.16%
49	\$12.82	\$11.51	-10.22%
50	\$13.04	\$11.70	-10.28%
51	\$13.26	\$11.89	-10.33%
52	\$13.48	\$12.08	-10.39%
53	\$13.70	\$12.27	-10.44%
54	\$13.92	\$12.46	-10.49%
55	\$14.14	\$12.65	-10.54%
56	\$14.36	\$12.84	-10.58%
57	\$14.58	\$13.03	-10.63%
58	\$14.80	\$13.22	-10.68%
59	\$15.02	\$13.41	-10.72%
60	\$15.24	\$13.60	-10.76%
61	\$15.46	\$13.79	-10.80%
62	\$15.68	\$13.98	-10.84%
63	\$15.90	\$14.17	-10.88%
64	\$16.12	\$14.36	-10.92%
65	\$16.34	\$14.55	-10.95%
66	\$16.56	\$14.74	-10.99%
67	\$16.78	\$14.93	-11.03%
68	\$17.00	\$15.12	-11.06%
69	\$17.22	\$15.31	-11.09%
70	\$17.44	\$15.50	-11.12%